AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

CLAIMS

1. (previously presented) A method for processing a data string of Arabic text characters into Arabic calligraphic script representation data, the method comprising:

providing a set of predetermined glyphs, each of said glyphs being a character having a form selected from a set of forms, each of said forms having a type selected from a set of types, each of said glyphs having been written by a calligrapher and stored in a font table;

identifying words in said string;

identifying a form of said characters in said words, said set of forms comprising initial, medial, final and isolated;

for said characters that are not of said isolated form, identifying a type of said characters as a function of compatibility with a type of a neighboring character, wherein said type is determined by a left attribute and a right attribute of said character, selected from a set of attributes in order to match a type of an adjacent glyph, said compatibility being determined by pen and hand movement of said calligrapher;

selecting, for each one of said characters in said data string, a glyph from said set of predetermined glyphs corresponding to said character, said form and said type; and

determining a vertical offset for each of said glyph to match neighboring glyphs, said script representation data comprising glyph identification data and offset data for

each character in said data string.

2. (currently amended) The method as claimed in claim 1, wherein said type identified is a best match of attributes between glyphs available in said set of glyphs for said form of said characters, said best match corresponding to a visualization of a calligrapher.

3. (previously presented) The method as claimed in claim 2, wherein said set of attributes comprises thickness, pen movement direction, pen rotation direction, and waveform.

4. (currently amended) The method as claimed in ~~any one of~~ claims 1 ~~to 3~~, wherein said set of glyphs comprises 512 glyphs or fewer.

5. (currently amended) The method as claimed in ~~any one of~~ claims 1 ~~to 3~~, wherein said set of glyphs comprises 256 glyphs or fewer.

6. (currently amended) The method as claimed in ~~any one of~~ claims 1 ~~to 5~~, wherein diacritics are represented by separate characters in said string corresponding to separate glyphs in said set of predetermined glyphs, said selecting comprising determining an offset position of each diacritic to be associated with a glyph representing a letter.

7. (previously presented) The method as claimed in claim 6, wherein unacceptable combinations of diacritics are verified and disallowed.

8. (currently amended) The method as claimed in ~~any one of~~ claims 1 ~~to 7~~, wherein some of said glyphs represent ligatures.

9. (original) The method as claimed in claim 8, wherein said ligatures represent

ligatures joining two letters.

10. (original) The method as claimed in claim 8, wherein said ligatures represent ligatures joining a letter and at least one diacritic.

11. (previously presented) An apparatus for processing a data string of Arabic text characters output from an Arabic text source into Arabic calligraphic script representation data, the apparatus comprising:

a storage module comprising a set of predetermined glyphs, each of said glyphs being a character having a form selected from a set of forms, each of said forms having a type selected from a set of types, each of said glyphs having been written by a calligrapher and stored in a font table in said storage module;

a word identification module receiving said data string and outputting a word;

a form identification module receiving said word and outputting a form of said characters in said word, said form being selected from a set of forms comprising initial, medial, final, and isolated;

a type identification module receiving said form and said characters and outputting type data of said characters as a function of compatibility with a type of a neighboring character, wherein said type is determined by a left attribute and a right attribute of said character, selected from a set of attributes in order to match a type of an adjacent glyph, said compatibility being determined by pen and hand movement of said calligrapher;

a glyph identification module receiving said type data and said characters and selecting, for each one of said characters, a glyph from said set of predetermined glyphs corresponding to said characters, said form, and said type; and

an offset determining module receiving said glyph and said characters and determining a vertical offset for said glyph to match neighboring glyphs and outputting said calligraphic script representation data.

12. (previously presented) An apparatus as claimed in claim 11, wherein said type

identification module identifies a best match of attributes between glyphs available in said set of predetermined glyphs for a form of a character, said best match corresponding to a visualization of a calligrapher.

13. (previously presented) An apparatus as claimed in claim 12, wherein said set of attributes comprises thickness, pen movement direction, pen rotation direction, and waveform.

14. (currently amended) An apparatus as claimed in ~~any one of~~ claims 11 ~~to 13~~, wherein said set of glyphs comprises 512 glyphs or fewer.

15. (currently amended) An apparatus as claimed in ~~any one of~~ claims 11 ~~to 13~~, wherein said set of glyphs comprises 256 glyphs or fewer.

16. (currently amended) An apparatus as claimed in ~~any one of~~ claims 11 ~~to 15~~, wherein said word identification module identifies diacritics as separate characters in said string, said glyph identification module associates said diacritics to separate glyphs in said set of predetermined glyphs, and said offset determining module determines an offset position of each diacritic to be associated with a glyph representing a letter.

17. (previously presented) An apparatus as claimed in claim 16, wherein said word identification module verifies unacceptable combinations of diacritics and disallows them.

18. (currently amended) An apparatus as claimed in ~~any one of~~ claims 11 ~~to 17~~, wherein some of said glyphs in said predetermined set of glyphs represent ligatures.

19. (original) An apparatus as claimed in claim 18, wherein said ligatures represent ligatures joining two letters.

20. (canceled)

21. (original) An electronic printing apparatus as claimed in claim 20, wherein said electronic printing apparatus comprises an input/output module, and said apparatus for processing inputs said calligraphic script representation data into said input/output module.

22. (original) An electronic printing apparatus as claimed in claim 20, wherein said electronic printing apparatus comprises an image/text translator, and said apparatus for processing inputs said calligraphic script representation data into said image/text translator.

23. (canceled)

24. (canceled)